

SUMMARY OF

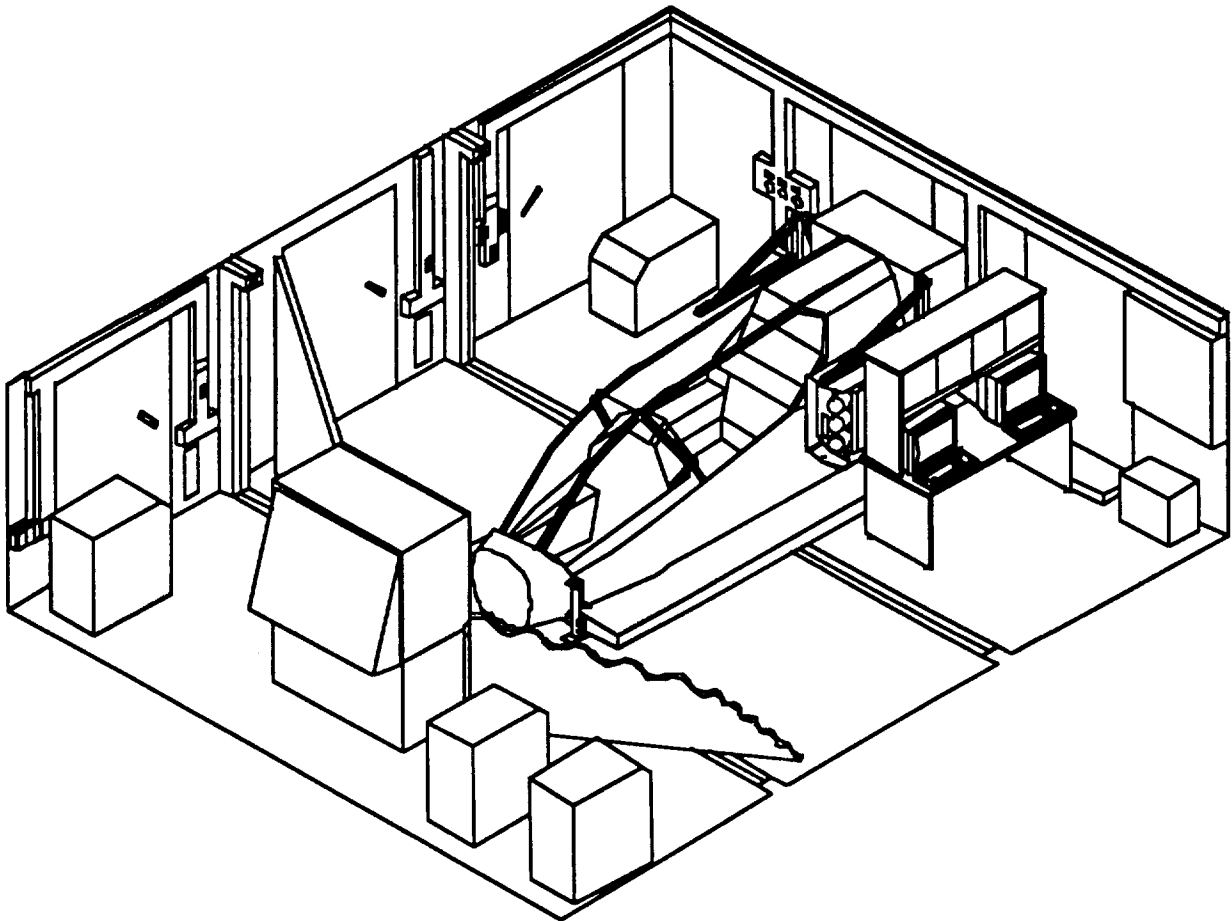
AH-1W AIRCREW PROCEDURES TRAINER

JULY 1995

Device 2F170

NAVAL AIR WARFARE CENTER TRAINING SYSTEM DIVISION

ORLANDO, FL



TRAINING CATEGORY:

AVIATION

ORIGINATING AGENCY:

CNO/AIR

SECURITY CLASSIFICATION OF DEVICE:

Device 2F170 is unclassified.

PURPOSE OF DEVICE:

Provide a means for on-the-ground training and evaluating student pilots on the AH-1W assault

helicopter in cockpit familiarization, engine operation, tactical navigation, weapons release, and both normal and emergency procedures. Perform refresher training by qualified pilots for procedures which would not normally be practiced in an operational aircraft.

INTENDED USE:

The device is capable of providing required training in cockpit procedures with basic flight and navigation capabilities. The cockpit assembly emulates the AH-1W aircraft panels and flight controls. All active indicators, controls, gauges, lights, panels, switches, circuit breakers, and other items are full-sized and located in the same relative position as in the actual aircraft. The main function

of the device is to provide cockpit familiarization and to enable the aircrew to perform both ground and in-flight normal procedures and emergency checklist procedures in accordance with NATOPS Flight Manual, Navy Model AH-1W Helicopter, NAVAIR 01-H1AAC-1, of 15 July 1992.

FUNCTIONAL DESCRIPTION:

Device 2F170 consists of a cockpit assembly, an Instructor/Operator Station (IOS), and a visual system. The device is housed in three mobile units, MIL-VANs, complexed together to provide a complete simulation facility.

The IOS includes an instructor desk, two chairs, two monitors, two keyboard/mouse assemblies, and a printer and stand. The IOS is located adjacent to the cockpit assembly with good viewing of the Out-The-Window (OTW) visuals and monitoring of the crewstations. The two IOS monitors are located on the instructor desk for starting the simulator system, controlling of student training sessions, and monitoring of corresponding student actions. The IOS printer is provided to obtain student records, session printouts, IOS screen dumps, and diagnostics.

A unique feature of the device is the capability to run and control the simulation without an instructor. The device is controlled from either of the crewstations via a trackball assembly. The IOS information is projected onto the right OTW screen.

All AC and DC power supplies and distribution, host computers, Input/Output (I/O) system, control loading system, aural cueing, intercom system, and aircraft common equipment are located in the cockpit assembly. The cockpit assembly includes all simulated panels, gauges, and instruments.

The visual system includes an image generator, diagnostics terminal and keyboard, a Barco Retrographics rear projection display (center channel), two Barcographics projectors (left and right channels), two projection screens, and a video switcher.

PHYSICAL INFORMATION:

Each Mil-Van - 8 feet high x 8 feet wide x 20 feet long.

The complexed facility - 8 feet high x 24 feet wide x 20 feet long.

Total Floor Area - 480 square feet.

Ideal concrete pad required - 30 feet wide x 30 feet long (900 square feet).

Minimum concrete pad required - 24 feet wide x 22 feet long (528 square feet).

EQUIPMENT REQUIRED (Not Supplied):

None.

POWER REQUIREMENTS:

3 separate 100 amperes, 60 hertz, 120 volt, 3-phase power sources.

PUBLICATIONS FURNISHED:

Operations and Maintenance Instructions Manual, AH-1W Aircrew Procedures Trainer, Device 2F170, NAWCTSD P-7219, (U).

Maintenance Requirement Cards, AH-1W Aircrew Procedures Trainer, Device 2F170, NAWCTSD P-7220, (U).

Commercial-Off-The-Shelf (COTS) Manual, AH-1W Aircrew Procedures Trainer, Device 2F170, NAWCTSD P-7221 Volumes 1 and 2, (U).

Training System Utilization Handbook, AH-1W Aircrew Procedures Trainer, Device 2F170, NAWCTSD P-7222, (U).

PERSONNEL:

Instructor/operator - One instructor pilot qualified in AH-1W aircrew procedures training including cockpit familiarization, engine operation, tactical navigation, weapons release, and both normal and emergency procedures. (Optional)

Trainees - One or two student pilots. (Can also perform instructor/operator functions)

Maintenance Personnel - TBD.

CONTRACT IDENTIFICATION:

Manufactured by

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